DOCUMENT RESUME

ED 360 910 HE 026 647

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TITLE Pitfalls and Opportunities of Strategic Planning in a Health Sciences Higher Education Institution in Puerto Rico. AIR 1993 Annual Forum Paper.
PUB DATE May 93
NOTE 31p.; Paper presented at the Annual Forum of the Association for Institutional Research (33rd, Chicago, IL, May 16-19, 1993).
PUB TYPE Reports - Descriptive (141) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Administrator Attitudes; Allied Health Occupations Education; College Administration; College Planning; Dental Schools; Foreign Countries; Higher Education; *Long Range Planning; Medical Schools; Pharmaceutical Education; Public Health; *Strategic Planning; Student Attitudes; Teacher Attitudes
IDENTIFIERS *AIR Forum; *University of Puerto Rico

ABSTRACT

A study of Strategic Planning at the Medical Sciences Campus (MSC), a unit of the University of Puerto Rico, examined the structures and cultures which may hinder the strategic planning process. The study collected data through a questionnaire which used an ecosystem dual rating scale to request information on the importance and frequency of occurrence of certain factors that contribute to the enhancement or hampering of the strategic planning process at MSC. The questionnaire cohort included participants (N=83) in eight strategic planning committees throughout the institution, including junior and senior faculty members, students, academic administrators, executive administrators, distinguished professors, five former chancellors, non-teaching personnel representatives, planners, and institutional researchers. The study concluded that the administrative, planning and cultural systems may hinder the strategic planning process and should be considered carefully during the pre-planning, and post-planning evaluation process. Other inhibiting factors were the lack of an effective information system, lack of integration between the strategic planning process and the operational administration, incongruence between the strategic plan and the annual budget, ineffective management of conflicts, and lack of revision of the benefits derived from the strategic planning process. (Contains 45 references.) (JB)

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PITFALLS AND OPPORTUNITIES OF STRATEGIC PLANNING IN A HEALTH SCIENCES HIGHER EDUCATION INSTITUTION IN PUERTO RICO

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for Management Research, Policy Analysis, and Planning

This paper was presented at the Thirty-Third Annual Forum of the Association for Institutional Research held at the Chicago Marriott Downtown, Chicago, Illinois, May 16-19, 1993. This paper was reviewed by the AIR Forum Publications Committee and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC Collection of Forum Papers.

Jean Endo
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PITFALLS AND OPPORTUNITIES OF STRATEGIC PLANNING IN A HEALTH SCIENCES HIGHER EDUCATION INSTITUTION IN PUERTO RICO

ABSTRACT

This paper presents findings from a study on Strategic Planning at a health sciences state funded higher education institution in Puerto Rico. It examines contrasting experiences with the strategic planning paradigm at five professional schools.

Results of the study may help institutional researchers and academic leaders understand the nature of the planning process and the pitfalls and opportunities associated with its design, development, and implementation. Based on the research findings and literature review, a planning model is presented and strategies to foster successful planning processes are suggested.

The research addresses contemporary perceptions of the strategic planning process which are typical in academic health centers. It intends to contribute to the development of strategic planning as a viable tool for dealing with the forthcoming dilemmas these institutions may confront in the 21st century.

INTRODUCTION

Higher education institutions are increasingly relying on formalized strategic planning processes to direct their present and future actions to compete favorably in a rapidly changing environment. In order for strategic planning to be optimally effective in this endeavor, institutional researchers, administrators, planners, and the university community in general, need to understand and become aware of the pitfalls and opportunities associated with the design, implementation, and development of strategic planning processes in higher education.

This study examines contrasting experiences of five professional schools in a health sciences state funded institution to help in the understanding of the nature of the planning process, its enabling and inhibiting factors, avoidance of hindering of planning efforts, and strategies to foster successful planning processes.

THE INSTITUTION

The Medical Sciences Campus (MSC) is the unit of the University of Puerto Rico (UPR) charged with the responsibility of training the health professionals needed by the Puerto Rican community. It presently has approximately, 2,800 students, 750 faculty members, and 1,575 non-faculty employees supporting the institution's teaching, research and service mission. It has an operating budget of $114 million, of which 38% are university funds, and 62% external resources.

The Medical Sciences Campus offers quality academic programs, as evidenced by their professional accreditations, student performance in board and licensure examinations, and high demand for its graduates. The academic offerings include degree programs ranging from post-doctoral fellowships, doctoral, master's, bachelor's, associate degrees and several certificates in the health fields. These academic programs are offered by five schools: the School of Medicine, the School of Dentistry, the Graduate School of Public Health, the School of Pharmacy and the College of Health Related Professions.

The Medical Sciences Campus is involved in numerous research and service programs and operates several research and service centers and projects. Most of these activities involve contractual agreements with governmental agencies in Puerto Rico, and in the United States. In the international scene, the MSC has been very active during the past five years, establishing collaborative projects in Spain, Latin America and academic health centers in the United States.

BACKGROUND

During the past five years, the Medical Sciences Campus has been engaged in strategic planning activities. Perceptions toward planning and solutions to face developmental challenges have changed considerably at the Institution in this period of time.

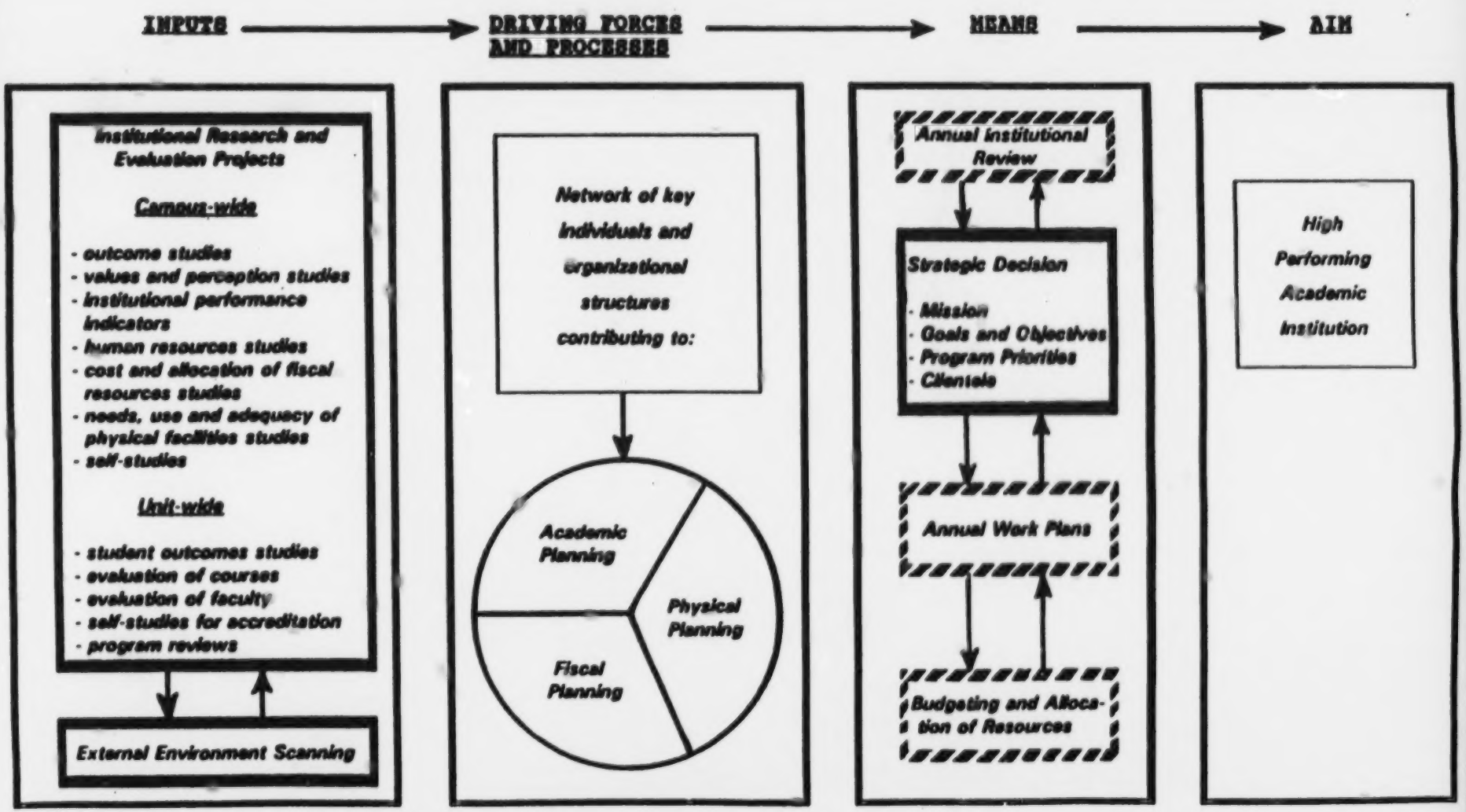
The strategic planning model adopted by the MSC envisions the integration and consolidation of all planning activities throughout the Campus. In this model, the input for the planning process is obtained through institutional research and evaluation projects such as self-studies and program reviews, and by means of environmental scanning (See Figure I).

The network of key individuals and organizational structures is the driving force that contributes to implement the academic, fiscal, and physical planning processes . The means to articulate and implement plans are the annual institutional review, strategic decisions, the annual work plan, and budgeting and allocation of resources. The principal aim of this integrated institutional planning approach is a high performing academic institution.

The constituencies of the Medical Sciences Campus were incorporated into the strategic planning process, as broad participation of the community in the process is a fundamental postulate for institutionalizing a strategic planning model and for the implementation of strategic decisions. Strategic planning models provide a theoretical frame-

Figure I

INTEGRATED INSTITUTIONAL PLANNING APPROACH CONDUCIVE TO INSTITUTIONAL EXCELLENCE



Source: Planning and Development Office

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work based on system principles that encourage the analysis of environmental trends in relation to strengths, weaknesses and values of constituencies. An Institutional Planning and Development Committee was established at the Campus level, and strategic planning committees were established at each faculty. These committees have been instrumental in promoting the participation of the constituencies in the planning process. They have also generated interest and willingness to work in planning efforts. The products of these planning activities have been useful for the discussion of fundamental issues in relation to institutional vision, mission, goals, objectives and resource allocation decisions and for accreditation purposes.

Members of the Institutional Planning and Development Committee are appointed by the Chancellor. It is composed by the: Dean for Academic Affairs (President), two Deans, three former chancellors of the MSC, three non-teaching personnel, one student and four faculty members. The composition of the strategic planning committees of the schools varies according to operational considerations, type and composition of standing committees at faculty level, and the stage of the planning process at the unit. In general, members of these committees include faculty representatives, non-teaching personnel, the faculty Associate Dean for Academic Affairs, and a student representative. Presidents of the school planning committees are also members of the institutional planning committee.

In addition to planning committees, there are other administrative structures which support and facilitate the institutional planning activities at the MSC: the Budget Office, Information Systems Office, External Resources Office, and the Planning and Development Office. This office conducts activities in the areas of institutional planning, evaluation, research, statistics, and physical planning.

RELEVANT LITERATURE

The review of the literature for this study revealed there are very few studies which examine both pitfalls and opportunities in the strategic planning process in higher education. There are several studies on characteristics of successful planning experiences and a few on pitfalls of the planning processes. Moore (1976) presents pragmatic lessons which guarantee the success of the institutional planning activities. Womack and Podemski (1985) establish a series of criteria which guarantee the effectiveness of an institutional planning process. Rasoul (1984) describes the perceptions of chief officers in higher education institutions towards the planning system. Takeuchi (1984) recommends several conditions that should prevail for successful outcomes in the planning process. Tack, Rentz and Rusell (1984) present operational guidelines for the establishment of a continuous planning process. Scott (1986) identifies the factors related to successful planning experiences as: organizational climate, community participation, pre-planning process and dissemination of results.

Specific studies on pitfalls of the strategic planning process found in the literature start out with Steiner's (1972), work on pitfalls for american business. Afterwards, Steiner and Schollhammer (1975), developed a follow-up study on pitfalls faced by multinational firms. De Woolfson's (1974), studied the pitfalls in the Planning, Programming, Budgeting System (PPBS), and Freeman (1977), developed a study on problems in comprehensive planning in higher education.

One of the most relevant studies was that of Lane (1983), which addresses perceptions of pitfalls on strategic planning in public and private higher education institutions in the United States. In this study, 590 colleges and universities were surveyed, with a response of 170 institutions. Ranking of the pitfalls was analyzed according to type and size

of the institution, finding no specific relationship between these variables.

The pitfalls identified as the most important by the respondents of Lane's (1983) questionnaire, were: Top administrators spend insufficient time on strategic planning; top administrators assumption they can delegate "planning" function to a planner; failure to develop institutional objectives as a basis for strategic plans; failure to secure a climate for strategic planning that is necessary for its success; failure to develop understanding of what strategic planning really is.

Cope (1988) developed a study which analyzed experiences with strategic planning at different higher education institutions in the United States, after a period of six years implementing it. The main research question in this study was whether strategic planning made any difference. Cope (1988), concluded that higher education institutions which had active, formal planning processes were most satisfied and believed they were getting better results using this planning paradigm. Respondents also reported "the analysis of funds available after six years for education and general expenses increased more rapidly for those institutions engaged in bona fide strategic planning" (P.1)

Recently, Schmidtlein (1990) reported findings and conclusions drawn from a three-year study of formal, institution-wide planning in the U.S. This study identified several factors that impede the effectiveness of comprehensive formal planning at institutions of higher education. Schmidtlein (1990) concludes that..."institutions that may not appear to be planning in the traditional sense, may in fact better accomplish the purposes and functions of planning". (P.17). The conclusions of Schmidtlein's (1990) study refutes those of Steiner (1972), De Woolfson's (1974), Steiner et al (1975) and Lane (1983), in relation to the usefulness of the strategic planning process for higher education. Schmidtlein (1990),

position also contrasts Keller (1983), Cope (1989), Shirley (1983) and Bryson (1989), in his conception of the strategic planning purposes, processes, and usefulness.

In a recent study on strategic planning pitfalls and good approaches at institutions of higher education, Tan (1990), identifies the principal pitfall to planning as overemphasizing quantitative data and theories, and the best approach to planning as the involvement of a good representation of the campus community in the planning process. Soder (1986) studied the factors that influence the implementation and development of strategic planning in community colleges in California. His main conclusions were that: Strategic planning should be approached on a holistic basis, a plan to plan should include staff development program, steering committee consensus should be reached regarding purposes and goals of planning effort, institutional health and readiness for change should be researched prior to initiation, options generated through strategic planning should be seriously considered and acted upon to strengthen planning credibility. In general, it was noteworthy that none of the studies examined, intended to identify possible roots for the pitfalls of the strategic planning process.

In view of contrasting perspectives in the literature review, strategic planning is in the midst of a controversy between theory and practice. There are differing points of view on the factors that impede or foster planning and on its overall effectiveness in establishing a real difference for the future survival of higher education institutions in their ability to respond to the ever changing needs posed by their external environment. In this controversial context, institutional researchers, planners and academic administrators need to clarify and fully understand the strategic planning process in higher education and its real possibilities in helping these institutions effect change, and adapt to the environmental threats and opportunities they face.

METHODOLOGY

This research addresses the contemporary contradicting perceptions of the strategic planning paradigm, as viewed and practiced in a health sciences higher education institution in Puerto Rico. Next century planning paradigms will undoubtedly need today's experiences from different and diverse cultural and geographical contexts, such as those from this academic health center, in Puerto Rico. If health sciences higher education institutions want to fully fulfill their missions to better serve and improve health care for the community, and respond effectively to challenges and demands, they need solid planning instruments to improve their capacity in the delivery of health education, research and service. The methodology used in this study was designed to collect relevant information to help these academic health centers in their planning systems and their decision making processes.

The data needed for this study was collected by means of a mailout questionnaire administered to the Medical Sciences Campus university community experienced in strategic planning efforts. The questionnaire uses an ecosystem dual rating scale to request information on the **importance** and **frequency** of occurrence of certain factors that contribute to the enhancement or hampering of the strategic planning process at the Medical Sciences Campus of the University of Puerto Rico.

Three constructs were developed to study the possible sources of the pitfalls or opportunities of the strategic planning process, that is, three institutional systems which may cause the facilitating or inhibiting factors of the strategic planning process at the MSC. The research constructs are the planning, the administrative and the institutional cultural systems.

The questionnaire was sent to a cohort of the MSC university community which included: the participants in eight strategic planning committees throughout the Institution:

School of Medicine, School of Dentistry, School of Pharmacy, School of Public Health, College of Health Related Professions, Deanship of Students, Deanship of Academic Affairs, and the MSC Institutional Planning and Development Committee. Participants in the study included junior and senior faculty members, students, academic administrators, executive administrators, distinguished professors, five former chancellors, non-teaching personnel representatives, planners and institutional researchers.

For hypothesis testing, the statistics used were Chi Square, and Fisher's Exact with a significance level of .05. To control on possible error for multiple comparisons, the test of Minimum Significant Differences was used. Cronbach's alpha was used for validity measurement of the instrument and reliability was assessed by a panel of experts.

RESULTS

Based on a critical analysis of relevant literature, previous research efforts and experiences in the planning field, the pitfalls and opportunities of strategic planning identified in this study, were classified as originating from three different sources: the administrative, the planning and the cultural institutional systems. These three systems may affect planning in two directions; fostering or hampering it, because each system may initiate pitfalls or opportunities to the strategic planning process. If not taken into consideration, inhibiting factors can disrupt and impact negatively on the planning process and its credibility as a viable instrument for the development and future transformation of an institution.

The **planning system** construct comprises: the planning process, per se, activities, participants, and patterns of relations. Also, the planning technology, information system, data processing and analysis techniques.

The **administrative system** construct includes: the formal structure for planning, organization, responsibilities, functions and leadership's commitment to planning. Also, the authority, direction, control, and distribution of resources.

The **cultural system** construct is conceived as: the vital system of ideas, beliefs, attitudes and values. Also, the pluralistic, political context in which the different stakeholders of the institution interact.

Sociodemographic Profile

The study population was composed of 83 members of the different planning committees at the MSC. A response rate of 67% was obtained. The respondents were found representative of the total population of the study (83), in terms of their age, rank, type of personnel, and academic workload characteristics.

A greater proportion of the respondents were 30-49 years of age, had 11-25 years of experience at the Institution, and worked on a full time basis. They were mainly associate and full professors who were devoted to teaching and academic administration, and who had mostly participated in planning committees at faculty level during the past three or four years.

Pitfalls and Opportunities

The most important pitfalls and opportunities identified in the study are summarized in the following tables. The **pitfalls** are presented in comparison to Lane's (1983) study on pitfalls of strategic planning in higher education in the U.S. As can be observed in Table 1, most of the planning pitfalls originate at the **administrative system**, both in Lane's, (1983), study and in the MSC, (1992), study.

TABLE 1

MOST IMPORTANT PITFALLS
MSC 1992 AND LANE 1983

MSC (1992) Rank	Lane (1983)* Rank	Pitfalls	System
1	-	Lack of an information system for planning.	Planning
2	7	Failure to integrate strategic planning to operational administration.	Administrative
3	9	Incongruence between the strategic plan and the annual budget decisions.	Administrative
4	-	Ineffective management of conflicts during innovation and change.	Administrative
5	5	Lack of continuous operationalization and revision of the strategic planning process.	Planning
6	-	Use of experts to convey sophisticated analysis techniques.	Planning
7	2	Lack of redistribution of workload for people charged with planning functions.	Administrative
8	8	Failure to tailor the planning design to the unique characteristics of the institution.	Cultural
9	1	Top administrators do not influence and motivate planning activities.	Administrative
10	10	Lack of interest of administrative personnel in the planning processes and activities.	Administrative
11	-	Stakeholders lack of interest and commitment to the strategic planning process.	Cultural
12	3	Failure to establish priority objectives.	Planning
13	6	Failure of top administrators to review the strategic plans developed with deans and dept. heads.	Administrative
14	4	Failure to secure a climate for stakeholders' participation in strategic planning.	Cultural

* Even though Lane didn't classify the pitfalls by system, for the purpose of comparison this was standardized in the MSC (1992) study.

Two of the three pitfalls of the **planning system**, are unique to the MSC and they are related to the information system. On the other hand, the need to individualize and continually review the planning process, was considered consistently as the number five pitfall in both studies. In relation to the **cultural system** pitfalls, the failure to tailor the planning design to the unique characteristics of the institution, was consistently considered number eight in both studies.

The facilitating factors or **opportunities** of strategic planning at the MSC, (Table 2), originate principally at the cultural and planning systems, except the number one opportunity that relates to the participation of the Dean for Academic Affairs in the strategic planning process; a factor which pertains to the administrative system. As can be observed, most of the facilitating factors identified, are related to the involvement of stakeholders in the planning process.

The five MSC schools were analyzed in terms of certain characteristics to identify if there was consistency in the ranking of pitfalls and opportunities of strategic planning to these characteristics. Schools which had a formal and systematic educational planning program, which were more experienced with planning activities and in which the dean participated actively in the planning processes; consistently listed similar pitfalls and opportunities in the administrative system. On the other hand, it was found that size and type of professional school does not determine differences in perceptions of the strategic planning pitfalls or opportunities. This was a similar finding as in Lane's (1983) study.

The analysis of the hypothesis of the study provided additional findings into the pitfalls and opportunities of strategic planning at the MSC. Respondents' academic rank, years of experience working in the institution, principal function in the institution and previous planning

TABLE 2

MOST IMPORTANT OPPORTUNITIES
MSC (1992)

MSC Rank	Opportunities	System
1	Participation of the Academic Dean in the Strategic Planning process.	Administrative
2	Formality of the strategic planning process.	Planning
3	High hierarchical position of the planner.	Administrative
4	Use of planners as facilitators of the strategic planning process.	Planning
5	Consensus in mission, goals and objectives.	Cultural
6	Internal assessment of strengths and weaknesses is done regularly.	Planning
7	Planning committees work cohesively.	Cultural
8	The strategic planning process uses both quantitative and qualitative data.	Cultural
8	Environmental scanning of opportunities and threats is done regularly.	Planning
9	Dialogue and openness is fostered in the strategic planning process.	Cultural
9	Consensus in decision making.	Cultural
10	Creativity through the strategic planning process.	Planning
10	Adapting strategic planning process to contingencies.	Planning

experiences, were associated with some perceptions on pitfalls and opportunities of the strategic planning process. Most of the associations were established between the respondent's experience with planning activities and the facilitating factors or opportunities of the cultural system (See Table 3).

CONCLUSIONS AND RECOMMENDATIONS

The study addresses contrasting perspectives on the strategic planning process, establishing relationships between the perceptions of the pitfalls or opportunities of the strategic planning process and the characteristics of the population of five professional schools in the health sciences field. One of the most important conclusions of the study is the awareness of the hindering effects that administrative, planning and cultural systems may have on the strategic planning processes and products if not considered adequately during the pre-planning, and post-planning evaluation processes.

The factors which were considered most inhibiting in general terms, were: the lack of an effective information system, lack of integration between the strategic planning process and the operational administration, incongruence between the strategic plan and the annual budget, ineffective management of conflicts, and lack of revision of the benefits derived from the strategic planning process.

Some of Lane's (1983) original results have stood the test of time. There were similarities in the rankings of pitfalls in the MSC (1992) study with Lane's (1983) research; mainly in relation to the inhibiting factors which originate in the administrative system. This is an interesting finding, due to the great variability between the institutions studied by Lane (1983) and the MSC, a specialized health institution. There is definitely a need to study more in-depth the role of the administrative system in the success or failure of planning processes

TABLE 3

STATISTICALLY SIGNIFICANT ASSOCIATIONS
($p < .05$)

Predictor Variables	Outcome Variables*	System
Years of experience at the Institution	Creativity	Planning
Years of experience at the Institution	Planner in the institutional hierarchy	Administrative
Principal function at the Institution	Consensus in decision making	Cultural
Experience in institutional planning committee	Cohesiveness	Cultural
Experience in faculty planning committee	Dialogue and openness	Cultural
Experience in faculty planning committee	Qualitative and Quantitative data	Cultural
Experience in faculty planning committee	Consensus in decision making	Cultural
Experience in faculty planning committee	Consensus in mission goals and objectives	Cultural
Experience in faculty planning committee	Ineffective disclosure of the strategic plan*	Cultural

*All the factors for which the null hypothesis was rejected, were considered in the study as opportunities or facilitating factors of the strategic planning process, except the "ineffective disclosure of the strategic plan", which was considered a pitfall.

because the hidden negative impact of this system may be the main factor in explaining the contemporary controversy between theory and practice of strategic planning in higher education institutions.

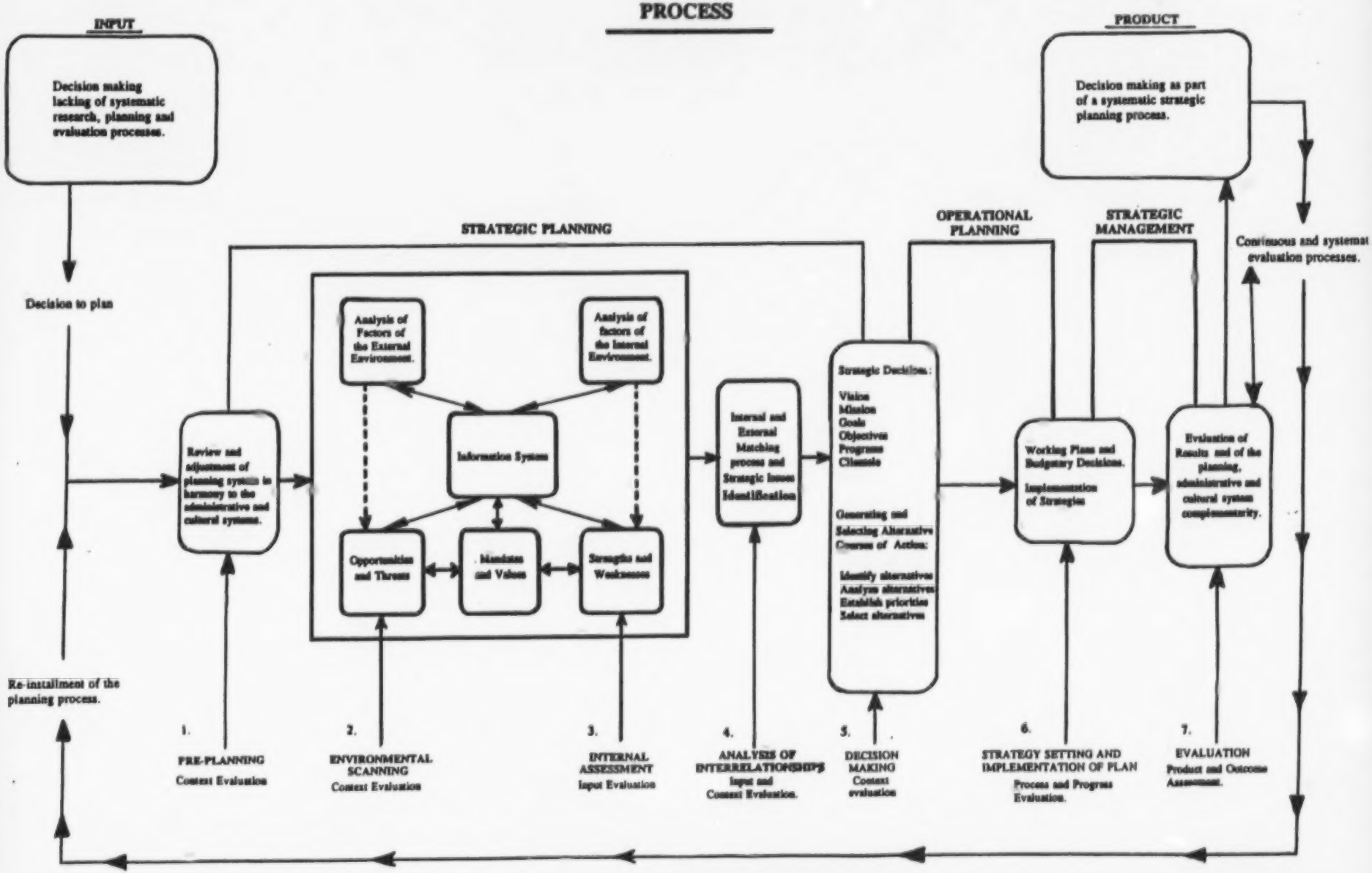
There were also three specific or particular pitfalls which were only listed in the top six ranks of the MSC (1992) study, implying the need to individualize or operationalize planning systems according to institutional needs and realities. The facilitating factors found principally at the cultural system point to the importance of organizational climate and stakeholders participation for the success of the planning effort. Hypothesis testing of predictor variables such as years of experience at the Institution, principal function at the Institution, and membership in committees were proven with nine outcome variables, most of them of the cultural system, and included: creativity, consensus, cohesiveness, and organizational climate.

The study recommends that each institution must assess and calibrate its administrative, cultural, and planning systems before deciding to initiate any strategic planning effort, during the planning process and after finishing it. Close attention should be given to the revision of the whole administrative system with a holistic approach of its impact in the institution and on planning efforts. The need to overcome the inhibiting factors before initiating any planning process is underscored. The design of the planning structure should take into consideration the predictor variables of the participant's profile, essentially in terms of previous experiences with planning systems, tenure and functions at the institution. Each institution should establish a formal and systematic educational program in strategic planning for its constituencies.

Figure 2 exhibits a model for the continuous development and improvement of the strategic planning process in higher education, overcoming the principal barriers or pitfalls of

THINKING MODEL FOR STRATEGIC PLANNING IN HIGHER EDUCATION

Figure II


INPUT
PROCESS
PRODUCT
Decision making lacking of systematic research, planning and evaluation processes.
Decision making as part of a systematic strategic planning process.
STRATEGIC PLANNING
OPERATIONAL PLANNING
STRATEGIC MANAGEMENT
Continuous and systemat evaluation processes.
Decision to plan
Review and adjustment of planning system in harmony to the administrative and cultural systems.
Analysis of Factors of the External Environment.
Analysis of factors of the Internal Environment.
Information System
Opportunities and Threats
Mandates and Values
Strengths and Weaknesses
Internal and External Matching process and Strategic Issues Identification
Strategic Decisions:
Vision
Mission
Goals
Objectives
Programs
Climate
Generating and Selecting Alternative Courses of Action:
Identify alternatives
Analyze alternatives
Establish priorities
Select alternatives
Working Plans and Budgetary Decisions.
Implementation of Strategies
Evaluation of Results and of the planning, administrative and cultural system complementarity.
Re-installment of the planning process.
1. PRE-PLANNING Context Evaluation
2. ENVIRONMENTAL SCANNING Context Evaluation
3. INTERNAL ASSESSMENT Input Evaluation
4. ANALYSIS OF INTERRELATIONSHIPS Input and Context Evaluation.
5. DECISION MAKING Context evaluation
6. STRATEGY SETTING AND IMPLEMENTATION OF PLAN Process and Progress Evaluation.
7. EVALUATION Product and Outcome Assessment.

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the administrative system. It emphasizes the importance of the pre-planning stage to assess the complementary relation required between the administrative, planning and cultural systems for an effective strategic planning process to be developed. The information system is also stressed as the integrating component of the environmental scanning and internal assessment activities. Evaluation is immersed in the whole seven phase planning process.

In general, the success in the implementation of this planning model depends chiefly on the ability and willingness of academic leaders to harmoniously synchronize the administrative, planning and cultural systems of the institution. Their main responsibility is the survival and growth of the organization; therefore their commitment to foster good approaches to planning will ensure their administrative success.

These research findings undoubtedly have practical applications for similar institutions undertaking strategic planning efforts. It is intended to contribute in the development and fostering of strategic planning as a viable tool for dealing with the issues, dilemas and threats that institutions of higher education are facing now and in the forthcoming 21st century. Institutional researchers, planners, administrators and academic leaders will better accomplish their reciprocal roles in higher education institutions if they fully understand the impact of administrative, planning and cultural systems pitfalls and opportunities on the strategic planning process and results.

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